

**Notice of Allowability**

Application No.

10/692,367

Examiner

Medina A. Ibrahim

Applicant(s)

MULLER ET AL.

Art Unit

1638

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 02/24/06.
2. ☒ The allowed claim(s) is/are 1-3, 7-13, 27-34, 38-43, and 47-52, renumbered as 1-30, respectively.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                       |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material                     | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance                         |
|  | 9. <input type="checkbox"/> Other _____.  |

### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Melissa Wenk on 02/28/06.

The application has been amended as follows:

In The Title:

The title has been replaced with the following:

---ISOLATED NUCLEIC ACIDS ENCODING PROTEINS WITH CHITINASE  
ACTIVITY AND USES THEREOF---

In The Abstract:

The abstract has been replaced with the following:

----The present invention provides isolated nucleic acids encoding polypeptides with chitinase activity and methods for using the nucleic acids to enhance resistance of plants to fungal and nematode infections.-----

In The Claims:

Claim 1 (Currently amended). An isolated nucleic acid comprising a polynucleotide encoding a chitinase polypeptide having [,wherein the chitinase polypeptide is ] at least 95% sequence identity [identical] to SEQ ID NO: 12 , wherein the chitinase polypeptide has anti-fungal or anti-nematode activity.

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Claim 1 (Currently amended). An isolated nucleic acid comprising a polynucleotide encoding a chitinase polypeptide having [wherein the chitinase polypeptide is ] at least 95% sequence identity [identical] to SEQ ID NO: 12 , wherein the chitinase polypeptide has anti-fungal or anti-nematode activity.

Claim 7 (Currently amended). An isolated nucleic acid comprising a polynucleotide encoding [a chitinase polypeptide, wherein] the chitinase polypeptide [is] of SEQ ID NO: 12.

At claims 8-9, --of-- has been inserted after the first "activity".

At claim 10, "is" has been replaced with ---comprises---.

At claim 27, "is " has been replaced with ---comprises---.

Claim 31 (Currently amended). A plant comprising a recombinant expression cassette comprising a promoter operably linked to a polynucleotide encoding a chitinase polypeptide having [chitinase activity, wherein the polypeptide is] at least 95% sequence identity with [identical to] SEQ ID NO: 12 and having anti-fungal or anti-nematode activity.

Claim 38. (Currently amended). A method of enhancing plant resistance to a fungus, the method comprising,

[a)] introducing into a plant a recombinant expression cassette comprising a promoter operably linked to a polynucleotide encoding the [a] chitinase polypeptide [having chitinase activity, wherein the polypeptide is] of SEQ ID NO: 12 [; and b) selecting a plant with enhanced resistance to a fungus].

Claim 41. (Currently amended). A method of enhancing plant resistance to a fungus, the method comprising,

[a)] introducing into a plant a recombinant expression cassette comprising a promoter operably linked to a polynucleotide encoding a chitinase polypeptide having [chitinase activity, wherein the polypeptide is] at least 95% sequence identity [identical to] with SEQ ID NO: 12 and having anti-fungal activity [; and b) selecting a plant with enhanced resistance to a fungus].

Claim 47. (Currently amended). A method of enhancing plant resistance to a nematode, the method comprising,

[a)] introducing into a plant a recombinant expression cassette comprising a promoter operably linked to a polynucleotide encoding the [a] chitinase polypeptide [having chitinase activity, wherein the polypeptide is] of SEQ ID NO: 12 [; and b) selecting a plant with enhanced resistance to a nematode].

Claim 50. (Currently amended). A method of enhancing plant resistance to a nematode, the method comprising,

[a)] introducing into a plant a recombinant expression cassette comprising a promoter operably linked to a polynucleotide encoding a chitinase polypeptide having [chitinase activity, wherein the polypeptide is] at least 95% sequence identity [identical to] with SEQ ID NO: 12 and having anti-nematode activity [; and b) selecting a plant with enhanced resistance to a nematode].

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### Contact information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Medina A. Ibrahim whose telephone number is (571) 272-0797. The Examiner can normally be reached Monday -Thursday from 8:00AM to 5:30PM and every other Friday from 9:00AM to 5:00 PM. Before and after final responses should be directed to fax nos. (703) 872-9306 and (703) 872-9307, respectively.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Anne Marie Grunberg, can be reached at (571) 272-0975.

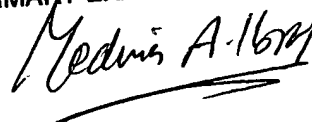
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199.

Mai

3/4/06

MEDINA A. IBRAHIM  
PRIMARY EXAMINER

A handwritten signature in black ink, appearing to read "Medina A. Ibrahim", is written over the printed name and title. The signature is stylized with a long horizontal stroke at the bottom.